

## **CLAIMS**

What is claimed is:

1. A method for facilitating the delivery of water to a plurality of cage level barrier-type cages, for housing animals for an animal study, the method comprising:  
providing a plurality of cage level barrier-type cages for an animal study at a laboratory facility site; and  
disposing a bag forming apparatus at a clean side of a laboratory washroom at the laboratory facility site;  
wherein the bag forming apparatus is capable of providing sealed bags of water for use in the cage level barrier-type cages.
2. The method of claim 1, further comprising providing bag material to the laboratory facility site.
3. The method of claim 2, wherein the bag forming apparatus is capable of forming a tube with the bag material.
4. The method of claim 3, wherein the bag forming apparatus is capable of forming a vertical seal on the tube.
5. The method of claim 4, wherein the bag forming apparatus is capable of adding a quantity of the water to fill the tube.
6. The method of claim 5, wherein the bag forming apparatus is capable of forming a horizontal seal in the tube.
7. The method of claim 6, wherein the bag forming apparatus is capable of cutting the tube at the horizontal seal to form individual bags of fluid.

8. The method of claim 7, wherein the bag forming apparatus is capable of providing additives to the water.

9. The method of claim 8, wherein the bag forming apparatus is capable of heating the water before adding said quantity of water to said tube such that the water and the water bag become sterilized.

10. The method of claim 9, wherein the water is heated to a temperature of about 180° F.

11. The method of claim 1, further comprising providing a disposable fluid valve for use with one of the sealed bags of water.

12. The method of claim 11, wherein the disposable fluid valve is formed of plastic.

13. The method of claim 1, further comprising:

providing a disposable fluid delivery valve assembly for use with one of the sealed bags of water, the valve assembly comprising ;

an upper member having a fluid channel defined therethrough;

a base having a flange member and a base fluid channel defined therethrough, wherein the base is designed to be matingly coupled to the upper member;

wherein the fluid delivery valve assembly is adapted to be coupled to the fluid bag to facilitate the providing of the water to a cage level barrier-type cage.

14. A method for facilitating the delivery of water to a plurality of cage level barrier-type cages disposed at a laboratory facility site, for housing animals for an animal study, the method comprising:

disposing a bag forming apparatus at a clean side of a laboratory washroom at the laboratory facility site;

wherein the bag forming apparatus is capable of providing sealed bags of water for use in the cage level barrier-type cages.

15. The method of claim 14, further comprising providing bag material to the laboratory facility site.

16. The method of claim 14, further comprising providing a disposable fluid valve for use with one of the sealed bags of water.

17. The method of claim 16, wherein the disposable fluid valve is formed of plastic.

18. The method of claim 14, further comprising providing a ventilated rack and cage system comprising a plurality of cage level barrier-type cages for placement at the laboratory facility site.

19. The method of claim 15, the bag material being provided in rolls, the method further comprising providing a lift apparatus for handling the rolls of bag material.

20. The method of claim 14, further comprising providing a conveyor system at the clean side of the laboratory washroom at the laboratory facility site for transporting the sealed water bags.

21. The method of claim 14, further comprising providing one or more totes for storing and transporting the sealed water bags.

22. The method of claim 21, further comprising providing a tote cart for transporting a plurality of the totes from the clean side of the washroom to a laboratory room containing the cage level barrier-type cages.

23. The method of claim 22, further comprising providing a tote conveyor platform for transporting the totes with sealed water bags from the conveyor system to the tote cart.

24. The method of claim 14, further comprising providing a compacting apparatus for compacting the sealed water bags after they are removed from the cage level barrier-type cages.

25. A method for eliminating the use of water bottles at an animal laboratory facility having a plurality of cage level barrier-type cages disposed at a laboratory facility site, for housing animals for an animal study, the method comprising:

disposing a bag forming apparatus at a clean side of a laboratory washroom at the laboratory facility site;

wherein the bag forming apparatus is capable of providing sealed bags of water for use in the cage level barrier-type cages.

26. The method of claim 25, further comprising providing bag material to the laboratory facility site.

27. The method of claim 25, further comprising providing a disposable fluid valve for use with one of the sealed bags of water bags.

28. The method of claim 27, wherein the disposable fluid valve is formed of plastic.

29. The method of claim 25, further comprising providing a ventilated rack and cage system comprising a plurality of cage level barrier-type cages for placement at the laboratory facility site.

30. The method of claim 26, the bag material being provided in rolls, the method further comprising providing a lift apparatus for handling the rolls of bag material.

31. The method of claim 25, further comprising providing a conveyor system at the clean side of the laboratory washroom at the laboratory facility site for transporting the sealed water bags.

32. The method of claim 25, further comprising providing one or more totes for storing and transporting the sealed water bags.

33. The method of claim 32, further comprising providing a tote cart for transporting a plurality of the totes from the clean side of the washroom to a laboratory room containing the cage level barrier-type cages.

34. The method of claim 33, further comprising providing a tote conveyor platform for transporting the totes with sealed water bags from the conveyor system to the tote cart.

35. The method of claim 25, further comprising providing a compacting apparatus for compacting the sealed water bags after they are removed from the cage level barrier-type cages.

36. A system for facilitating the delivery of water to a plurality of cage level barrier-type cages disposed at a laboratory facility site, for housing animals for an animal study, the system comprising:

a bag forming apparatus designed and configured for placement at a clean side of a laboratory washroom at the laboratory facility site;  
wherein the bag forming apparatus is capable of providing sealed bags of water for use in the cage level barrier-type cages.

37. The system of claim 36, further comprising bag material that is provided to the laboratory facility site.

38. The system of claim 36, further comprising a disposable fluid valve provided at the laboratory facility site for use with one of the sealed bags of water.

39. The system of claim 38, wherein the disposable fluid valve is formed of plastic.

40. The system of claim 36, further comprising a ventilated rack and cage system comprising a plurality of cage level barrier-type cages for placement at the laboratory facility site.

41. The system of claim 37, further comprising a lift apparatus for handling rolls of the provided bag material.

42. The system of claim 36, further comprising a conveyor system for placement at the clean side of the laboratory washroom at the laboratory facility site for transporting the sealed water bags.

43. The system of claim 36, further comprising one or more totes for storing and transporting the sealed water bags.

44. The system of claim 43, further comprising a tote cart for transporting a plurality of the totes from the clean side of the washroom to a laboratory room containing the cage level barrier-type cages.

45. The method of claim 44, further comprising providing a tote conveyor platform for transporting the sealed water bags from the conveyor system to the tote cart.

46. The system of claim 36, further comprising a compacting apparatus for compacting the sealed water bags after they are removed from the cage level barrier-type cages.